

LDO GROUP Report



SITE:	Mannering Colliery
Department:	HSEC
REPORT TITLE:	Monthly Environmental Report – March 2015
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Distribution:	Mannering Colliery Website

TABLE OF CONTENTS

Summary	3
Introduction	3
Scope.....	4
Definitions	4
References	4
Monitoring Results	5
Water – Quality	5
Daily Water Quality Results	5
Monthly Water Quality Results	6
Water – Volume	7
Air Quality	8
Monthly depositional dust results	8
Rolling annual average depositional dust results	8
Operational Noise	9
Weather	10

Summary

On the 30 March 2015 an oil and grease result of 11mg/L was recorded at licenced discharge point 1, above the limit of 10 mg/L. There was direct cause observed or identified for the oil and grease result, with all prior and subsequent monitoring remaining below the limit of 10 mg/L. There were no other environmental incidents in the month of March 2015 at Mannering Colliery.

Introduction

LakeCoal Pty Ltd (LakeCoal) operates the Mannering Colliery, an underground coal mine at the southern end of Lake Macquarie.

This monthly report is to satisfy the requirements of;

- section 66(6) of the Protection of the Environment Operations Act, 1997, to make monitoring data related to an Environment Protection Licence publically available and
- condition 7 & 10, schedule 5, of Development Approval 06_0311 (as modified) to provide details of monitoring results and environmental performance.

This report provides environmental monitoring data from Mannering Colliery for the period 1st March 2015 to 31st March 2015.

Environmental monitoring data is collected as required under Environment Protection Licence 191 (EPL 191).

Details of the Mannering Colliery and EPL 191 are provided below.

Mannering Colliery Information	
Premises name	Mannering Colliery
Address	Rutleys Road, Doyalson, NSW, 2262
Licensee	LakeCoal Pty Ltd
EPL #	191
EPL location	http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=33196&SYSUID=1&LICID=191

The overall purpose of this report is to keep stakeholders informed of the environmental monitoring results at Mannering Colliery and maintain a transparent and accountable reporting system.

Scope

This report presents the results from the various environmental monitoring undertaken for Mannering Colliery.

Results are presented for each specific month and annual data, averages and trends in data are shown to where relevant.

Where applicable, the results of the monitoring programs are compared with the relevant criteria (from the EPL or Project Approval) to determine compliance.

Monitoring results presented include;

- Water – quality;
- Water – volume;
- Air quality;
- Operational noise; and
- Weather data

Definitions

°C – degrees celsius

dB– decibels

dB(A) – noise level measurement units are decibels (dB). The A-weighting scale is used to approximate human perception of noise

g/m²/month – grams per square metre per month

kL– kilolitres

L_{Aeq}–the average A-weighted noise energy (in dB) for a measurement period

mg/L – Milligrams per litre

mm – millimetre

µS/cm – microsiemens per centimetre

References

Project Approval 06_0311 (as modified)

Environment Protection Licence 191 (Licence version date: 29 October 2013)

Steel River Testing - Dust Deposition Report – March 2015 (Report 8432-0)

ALS Environmental - Monthly Water Monitoring Results (March 2015 - Work Order ES1505595)

Report



Title: Monthly Environmental Report – March 2015

Monitoring Results

Water – Quality

Daily Water Quality Results

Mar-15			
EPL	191		
Licensee	LakeCoal Pty Ltd		
Premises	Mannering Colliery		
Period	01-Mar-15	to	31-Mar-15
Location	LDP001 (EPA ID # 1)		
Date sampled	Daily		
Date reported	Refer report date		
Monitoring requirement	Daily monitoring during discharge		
pH limit	6.5 - 8.5		
TSS limit (mg/L)	50		
Oil and grease limit (mg/L)	10		
Exceedance (Yes/No)	Yes		
Daily Water Quality Results			
Date	pH	TSS (mg/L)	Oil and grease (mg/L)
01/01/2015			
02/01/2015	7.9	3	<5
03/01/2015	7.8	1	<5
04/01/2015	7.8	3	<5
05/01/2015	7.7	7	<5
06/01/2015	7.7	7	<5
07/01/2015			
08/01/2015			
09/01/2015	7.8	11	<5
10/01/2015	7.8	3	<5
11/01/2015	8.0	4	<5
12/01/2015	7.9	5	<5
13/01/2015	7.9	<1	<5
14/01/2015			
15/01/2015			
16/01/2015	7.8	9	<5
17/01/2015	7.8	13	<5
18/01/2015	7.9	10	<5
19/01/2015	7.8	9	<5
20/01/2015	7.8	7	<5
21/01/2015			
22/01/2015			
23/01/2015			
24/01/2015	7.8	6	<5
25/01/2015	7.8	2	<5
26/01/2015	7.8	1	<5
27/01/2015	7.8	5	<5
28/01/2015			
29/01/2015			
30/01/2015	7.9	4	11
31/01/2015	7.9	8	<5
Notes:			
Monitoring undertaken daily during water discharges			
An oil and grease result of 11mg/L was recorded on the 30/3/15 above the limit of 10mg/L			

Title: Monthly Environmental Report – March 2015

Monthly Water Quality Results

March 2015			
EPL	191		
Licensee	LakeCoal Pty Ltd		
Premises	Mannering Colliery		
Date Sampled	11-Mar-15		
Date Obtained	18-Mar-15		
Date Reported	Refer report date		
Sampling Point	1		
Parameter	Units	Limit	Result
Aluminium (Dissolved)	µg/L		<10
Aluminium (Total)	µg/L		<10
Antimony	µg/L		<1
Arsenic (Dissolved)	µg/L		1
Arsenic (Total)	µg/L		1
Barium	µg/L		259
Beryllium (Dissolved)	µg/L		<1
Beryllium (Total)	µg/L		<1
Boron	µg/L		280
Cadmium (Dissolved)	µg/L		<0.1
Cadmium (Total)	µg/L		<0.1
Calcium	mg/L		152
Chromium (Dissolved)	µg/L		1
Chromium (Total)	µg/L		<1
Cobalt (Dissolved)	µg/L		<1
Cobalt (Total)	µg/L		<1
Conductivity	µs/cm		26500
Copper (Dissolved)	µg/L		1
Copper (Total)	µg/L		<1
Iron	µg/L		110
Lead (Total)	µg/L		<1
Lead (dissolved)	µg/L		<1
Lithium	µg/L		557
Magnesium	mg/L		302
Manganese (dissolved)	µg/L		46
Mercury (Total)	µg/L		<0.1
Mercury (dissolved)	µg/L		<0.1
Molybdenum (Dissolved)	µg/L		11
Molybdenum (Total)	µg/L		13
Nickel (Dissolved)	µg/L		5
Nickel (Total)	µg/L		5
Nitrogen (Ammonia)	mg/L		1.09
Phosphorous (Total)	mg/L		0.04
Potassium	mg/L		46
Selenium (Dissolved)	µg/L		<10
Selenium (Total)	µg/L		<10
Silica	mg/L		13
Silver (Total)	µg/L		<1
Silver (dissolved)	µg/L		<1
Sulfur	mg/L		146
Tin (Total)	µg/L		<1
Titanium (Total)	µg/L		<10
Vanadium (Dissolved)	µg/L		<10
Vanadium (Total)	µg/L		<10
Zinc (Dissolved)	µg/L		9
Zinc (Total)	µg/L		<5

Title: Monthly Environmental Report – March 2015

Water – Volume

March 2015		
EPL	191	
Licensee	LakeCoal Pty Ltd	
Premises	Mannering Colliery	
Date Sampled	Daily	
Date Reported	Refer report date	
Discharge volume limit	4000 kilolitres per day	
Sampling Point	LDP001 (EPA ID # 1)	
Date (24 hour period)	Unit	Volume
01/03/2015	kL	0
02/03/2015	kL	946
03/03/2015	kL	2011
04/03/2015	kL	1195
05/03/2015	kL	690
06/03/2015	kL	416
07/03/2015	kL	0
08/03/2015	kL	0
09/03/2015	kL	1190
10/03/2015	kL	2017
11/03/2015	kL	1383
12/03/2015	kL	998
13/03/2015	kL	611
14/03/2015	kL	0
15/03/2015	kL	0
16/03/2015	kL	1056
17/03/2015	kL	2023
18/03/2015	kL	1339
19/03/2015	kL	1132
20/03/2015	kL	438
21/03/2015	kL	0
22/03/2015	kL	0
23/03/2015	kL	0
24/03/2015	kL	1200
25/03/2015	kL	1488
26/03/2015	kL	1202
27/03/2015	kL	635
28/03/2015	kL	0
29/03/2015	kL	0
30/03/2015	kL	1216
31/03/2015	kL	1153

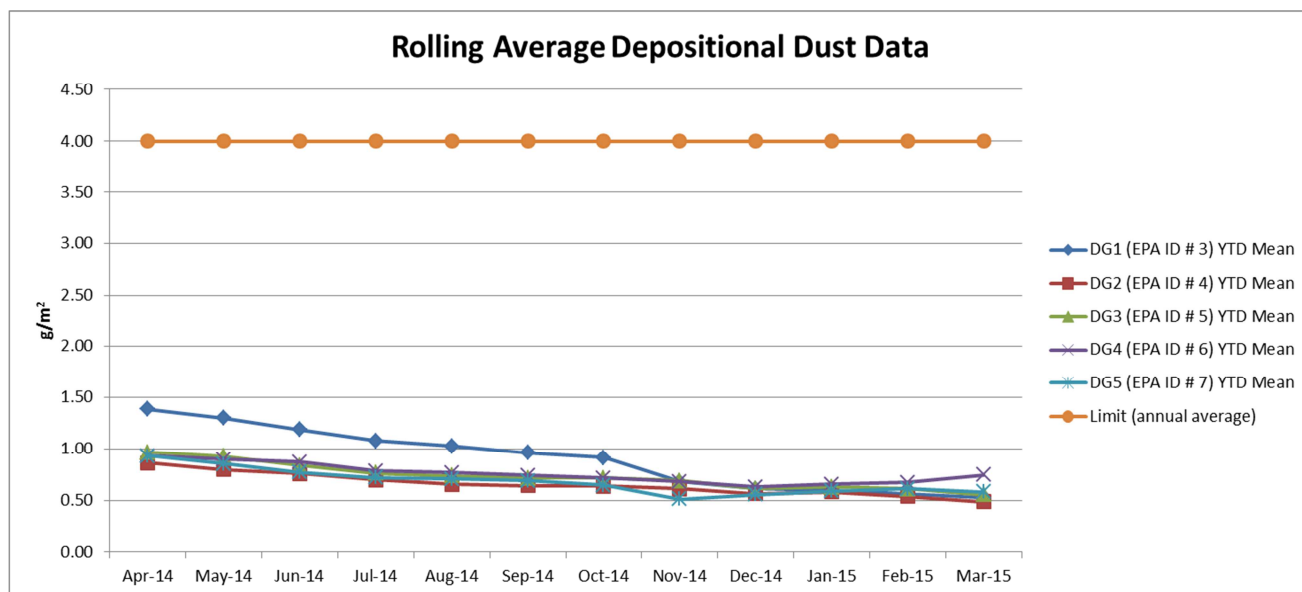
Title: Monthly Environmental Report – March 2015

Air Quality

Monthly depositional dust results

Monthly Depositional Dust Data			
March 2015			
EPL	191		
Licensee	LakeCoal Pty Ltd		
Premises	Mannering Colliery		
Date Sampled	19-Feb-15	to	20-Mar-15
Date Obtained	01-Apr-15		
Date Reported	Refer report date		
Sampling Point	As per site below		
Site	Insoluble Matter (g/m2/month)		
DG1 (EPA ID # 3)	0.5		
DG2 (EPA ID # 4)	0.8		
DG3 (EPA ID # 5)	0.5		
DG4 (EPA ID # 6)	1.1		
DG5 (EPA ID # 7)	0.6		
Notes:			
- For site locations refer to Air Quality Management Plan			

Rolling annual average depositional dust results



Operational Noise

Noise monitoring has been undertaken for day, evening and night periods in Q1 2015, results are presented in the tables below. There were no exceedances of relevant criteria.

LA_{eq}^{15m} Attended Noise Monitoring Results – Quarter 1 2015			
Location	Date / Time	Criteria LA _{eq} dB	Criteria MC LA _{eq} dB (from Colliery)
Day			
RA1	03/03/2015 12:02	44	IA
RA2	03/03/2015 12:49	43	IA
RA3	03/03/2015 13:10	40	IA
Evening			
RA1	03/03/2015 18:24	44	IA
RA2	03/03/2015 18:47	43	IA
RA3	03/03/2015 19:07	40	IA
Night			
RA1	03/02/2015 22:27	35	IA
RA2	03/02/2015 23:12	43	IA
RA3	03/02/2015 23:32	40	IA

LA_{A1}^{1m} Attended Noise Monitoring Results – Quarter 1 2015			
Location	Date / Time	Criteria LA _{eq} dB	Criteria LA _{eq} dB (from Colliery)
Night			
RA1	03/02/2015 22:27	49	IA
RA2	03/02/2015 23:12	50	IA
RA3	03/02/2015 23:32	52	IA
Notes: - "Inaudible" (IA)			
- for monitoring locations refer to Mannering Colliery Noise Management Plan.			

Title: Monthly Environmental Report – March 2015

Weather

A summary of weather data recorded by an on-site meteorological monitoring station at the Colliery is presented below for the year to date.

Monthly Weather Data			
Mar-15			
EPL	191		
Licensee	LakeCoal Pty Ltd		
Premises	Mannering Colliery		
Location	W1 (on-site weather station)		
Date published	Refer report date		
Date sampled:	Daily		
Date obtained:	13/04/2015		
Month	Total Rainfall / Month (mm)	Minimum Temperature (°C)	Maximum Temperature (°C)
Jan-15	235.4	13	35
Feb-15	54.2	16	33
Mar-15	122.4	11	35

